

Appl. No. 09/839,100
Amdt. Dated September 23, 2004
Reply to Office action of June 23, 2004
Attorney Docket No. P13354-US1
EUS/J/P/04-2125

Amendments to the Specification:

- 1.) Please amend the Abstract as follows:

The invention is concerned with a method in a communication network for invoking services, the communication network ~~comprising~~ including at least one or more terminals and at least two service entities. In the method the terminal deduces necessary support and service components for providing an end-user service. A set of configuration requests is ~~[[the]]~~ constructed at the terminal, each associated with one or more specific service entities for invoking individual service components composing a service. Each configuration request is forwarded from the terminal to the service entity/entities indirectly, by using a special network support function for configuring service entities--the assembler unit of the invention - or directly in a way, which is chosen in accordance with pre-defined criteria. The invention is also concerned with a ~~communication~~ communication network, a terminal and an assembler unit to perform the method.

FIG. 2

- 2.) Please replace the paragraph beginning at page 1, line 14, with the following rewritten paragraph:

Network support of conventional end user services (e.g. telephony) of today are mostly monolithically packaged to be invoked from a user terminal from a ~~service~~ service entity belonging to one service provider.

- 3.) Please replace the paragraph beginning at page 1, line 18, with the following rewritten paragraph:

In a de-regulated market, which is the trend of today, the traditionally bundled, packaged network support of end-user services may be decomposed into constituting sub-components when the packaged services from a ~~particular~~ particular service

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provider are not used. Each of these constituting components may then be offered separately to the end-users by several different service providers, allowing the end-user to choose with whom to establish a business relation and thereby be allowed to invoke the individual service component. One service provider may also have many instances, service entities, of the same service component, e.g. geographically distributed. The end-user may also choose between the different service entities.

4.) Please replace the paragraph beginning at page 2, line 6, with the following rewritten paragraph:

Furthermore, the terminal control logic complexity is increased in such ~~[[an]]~~ a procedure, which also is ~~a drawback~~ a drawback.

5.) Please replace the paragraph beginning at page 2, line 13, with the following rewritten paragraph:

Prior art methods exist which are meant to decrease signaling when invoking services. In the European Patent Application EP 0 762 789 A2, a ~~network~~ network based agent performs complex signaling functions related to call processing on behalf of an associated mobile terminal, thus reducing the amount of signaling traffic that must travel over the valuable ~~[[ait]]~~ air interface.

6.) Please replace the paragraph beginning at page 2, line 19, with the following rewritten paragraph:

Also agencies for establishing and maintaining desired Quality of Service (QoS) in wired systems are known. Such an architecture is described in the article "QoS Agency: An agent based Architecture for supporting Quality of service in Distributed Multimedia Systems" by L.A. ~~guedes~~ Guedes et al, 1997 IEEE Conference on Protocols for

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Multimedia Systems-Multimedia Networking PROMS-MnNet (Cat. No 97TB100116) p.
204-12, ISBN 0818679166, 24-27 November 1997.

7.) Please replace the paragraph beginning at page 3, line 16, with the following rewritten paragraph:

The communication network and the terminal of the invention has means for performing the method of the invention. Especially, it is mentioned that the terminal can decide the way for forwarding each configuration request in accordance with the pre-defined criteria, in other words it can choose in which extent it desires to use ~~network~~ network support in the configuration and distribution of the service requests and it can also decide not to use network support at all.

8.) Please delete the paragraph beginning at page 4, line 12.

9.) Please replace the paragraph beginning at page 4, line 21, with the following rewritten paragraph:

It is, however, the terminal that primarily decides the service components needed for a given service. The terminal has thus more control over decisions of which service components and which service entity (one or more) to invoke for a given service. If the terminal finds it convenient, it uses the service unit for one or more, usually all of the configuration requests. This decision made by the terminal takes place in accordance with pre-defined ~~criteria~~, criteria, which might depend on geographical position, price, available equipment, signalling amounts, spectrum allocation and desired ~~performance/characteristics~~ performance/characteristics.

10.) Please replace the paragraph beginning at page 4, line 30, with the following rewritten paragraph:

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As was mentioned above, the analysis of which service components that are needed to get a complete end-user service is primarily performed at the terminal. When the terminal decides to use the assembler unit for support in configuring the individual service ~~components~~ components, the service entity analyses the service configuration request and distributes them to the different service entities.

11.) Please replace the paragraph beginning at page 5, line 11, with the following rewritten paragraph:

The invention focuses on terminal control. It is terminal control logic which analyses the need of service components on a case-by-case principle and, if network support from an assembler unit is needed for ~~configuring~~ configuring and distributing the ~~service~~ service components.

12.) Please replace the paragraph beginning at page 6, line 24, with the following rewritten paragraph:

Some examples of embodiments of the ~~invention~~ invention are presented in the following, which are not ~~meant~~ meant to restrict the invention. In these ~~examples~~ examples, most of the intelligence and the decisions are made in the terminal, but as has been indicated ~~earlier~~ earlier in the text, the assembler might be given more intelligence and it might make a part of the decisions with respect to distributing and composing the service for the terminal. The terminal might also decide not to use the assembler unit as support for invoking the desired service.

13.) Please replace the paragraph beginning at page 7, line 1, with the following rewritten paragraph:

In the architecture of FIG. 1, which is used in existing prior art solutions when a terminal can use several service entities or ~~service providers~~ service providers for invoking

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services, the telecommunication network 1 comprises a terminal 2, another terminal 3, a router 4 for routing IP packets sent by the terminals to the right end-point, and several service entities (service providing entities) A, B, C and D. The cellular link layer is indicated with 5, which gives the functionality for the terminals to communicate over radio waves.

14.) Please replace the paragraph beginning at page 8, line 28, with the following rewritten paragraph:

This is presented in detail in FIG. 5, in which B invites A to an audio session in step 1. A determines that he wishes to respond with audio and visual information exchange where the image is stored in a separate server. A also determines that he requires a filtering optimization device for the visual data stream due to the cost of the cellular access and a transcoding service for the audio data stream since the codecs in the two terminals are not compatible. In step 2, A requests the assembler unit to configure the transcoding service and the filtering/compressing service but also an end-point in which images to be exchanged between A and B is stored. In step 3, the assembler unit requests filtering/compressing from a filtering/compressing service component, and gets the filtering/compressing in step 4. In step 5, the assembler unit requests the transcoding from a transcoding service component and gets the transcoding in step 6. An image storage server is contacted by the assembler unit in step 7, the service of which is received in step 8. The assembler unit then configures the two service components and the image storage ~~end-point~~ end-point and ~~acknowledges~~ acknowledges this to A in step 9. A then responds to B in step 10 and the session starts.